

### **DATA PACKAGE** GENERAL CHEMISTRY

### **PROJECT NAME : CTO WE13**

TETRA TECH NUS, INC.

661 Andersen Drive

Suite 200

Pittsburgh, PA - 15220-2745

Phone No: 412-921-7090

ORDER ID : Q1774 ATTENTION : Ernie Wu



Laboratory Certification ID # 20012





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**Client Sample Number** 

### **Cover Page**

**Order ID :** Q1774

**Project ID :** CTO WE13

Client : Tetra Tech NUS, Inc.

### Lab Sample Number

Q1774-02TT-073-IDWGW-20250409Q1774-03TT-074-IDWGW-20250409Q1774-04TT-075-IDWGW-20250409

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature :

APPROVED By Nimisha Pandya, QA/QC Supervisor at 1:54 pm, Apr 21, 2025

Date: 4/11/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

### CASE NARRATIVE

Tetra Tech NUS, Inc. Project Name: CTO WE13 Project Manager : Ernie Wu Chemtech Project # Q1774 Test Name: pH

### A. Number of Samples and Date of Receipt:

3 Water samples were received on 04/10/2025.

### **B.** Parameters:

According to the Chain of Custody document, the following analyses were requested: Mercury, Metals ICP-TAL, METALS-TAL, PCB, pH and VOCMS Group4. This data package contains results for pH.

### **C. Analytical Techniques:**

The analysis of pH was based on method 9040C.

### D. QA/ QC Samples:

The Holding Times were met for all samples except for TT-073-IDWGW-20250409 of pH, for TT-074-IDWGW-20250409 of pH.for TT-075-IDWGW-20250409 of pH as samples were receive out of holding time.

The Blank Spike met requirements for all samples.

The Duplicate analysis met criteria for all samples.

The Blank analysis did not indicate the presence of lab contamination.

The Calibration met the requirements.

### **E. Additional Comments:**

The laboratory certifies that the all-electronic diskette deliverable exactly match the data summary forms (i.e. Form Is).

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.



Signature\_



### DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following " Results Qualifiers" are used:

J	Indicates the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).						
U	Indicates the analyte was analyzed for, but not detected.						
ND	Indicates the analyte was analyzed for, but not detected						
Ε	Indicates the reported value is estimated because of the presence of interference						
Μ	Indicates Duplicate injection precision not met.						
Ν	Indicates the spiked sample recovery is not within control limits.						
S	Indicates the reported value was determined by the Method of Standard Addition (MSA).						
*	Indicates that the duplicate analysis is not within control limits.						
+	Indicates the correlation coefficient for the MSA is less than 0.995.						
D	Indicates the reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.						
M OR	Method qualifiers"P"for ICP instrument"PM"for ICP when Microwave Digestion is used"CV"for Manual Cold Vapor AA"AV"for automated Cold Vapor AA"CA"for MIDI-Distillation Spectrophotometric"AS"for Semi – Automated Spectrophotometric"T"for Titrimetric"NR"for analyte not required to be analyzedIndicates the analyte's concentration exceeds the calibrated range of the instrument for that specific analysis.						
Q	Indicates the LCS did not meet the control limits requirements						
Н	Sample Analysis Out Of Hold Time						

### ALLIANCE 284 Sheffield Street, Mountainside New Jersey 07092

NEW JERSEY LAB ID#: 20012: NEW YORK LAB ID#: 11376

### GENERAL CHEMISTRY CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEM	TECH PROJECT NUMBER: Q1774	MATRIX: Water			
METH	DD: 9040C				
1.	Blank Contamination - If yes, list compounds and concentration	ns in each blank:	NA	NO ✔	YES
2.	Matrix Spike Duplicate Recoveries Met Criteria				$\checkmark$
	If not met, list those compounds and their recoveries which fall range.	outside the acceptable			
	The Blank Spike met requirements for all samples.				
3.	Sample Duplicate Analysis Met QC Criteria				$\checkmark$
	If not met, list those compounds and their recoveries which fall range.	outside the acceptable			
4.	Digestion Holding Time Met			$\checkmark$	
	If not met, list number of days exceeded for each sample:				
	The Holding Times were met for all samples except for TT-073 of pH, for TT-074-IDWGW-20250409 of pH.for TT-075-IDW	-IDWGW-20250409 GW-20250409 of pH			

#### ADDITIONAL COMMENTS:

as samples were receive out of holding time.

The laboratory certifies that the all-electronic diskette deliverable exactly match the data summary forms (i.e. Form Is).





#### APPENDIX A

### **QA REVIEW GENERAL DOCUMENTATION**

Project #: Q1774

For thorough review, the report must have the following: **GENERAL:** Are all original paperwork present (chain of custody, record of communication, airbill, sample management lab chronicle, login page) × × × × × Check chain-of-custody for proper relinquish/return of samples Is the chain of custody signed and complete Check internal chain-of-custody for proper relinquish/return of samples /sample extracts Collect information for each project id from server. Were all requirements followed **COVER PAGE:** Do numbers of samples correspond to the number of samples in the Chain of Custody on login page Do lab numbers and client Ids on cover page agree with the Chain of Custody **CHAIN OF CUSTODY:** ✓ ✓ ✓ ✓ Do requested analyses on Chain of Custody agree with form I results Do requested analyses on Chain of Custody agree with the log-in page Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody Were the samples received within hold time Were any problems found with the samples at arrival recorded in the Sample Management Laboratory ✓ Chronicle ANALYTICAL: ✓ ✓ ✓ ✓ ✓ Was method requirement followed? Was client requirement followed? Does the case narrative summarize all QC failure? All runlogs and manual integration are reviewed for requirements All manual calculations and /or hand notations verified

QA Review Signature: SOH

SOHIL JODHANI

Date: 04/11/2025

Completed



### LAB CHRONICLE

OrderID: Client: Contact:	Q1774 Tetra Tech NUS, Inc. Ernie Wu			OrderDate: Project: Location:	4/10/2025 10:4 CTO WE13 F11,VOA Ref. #	3:00 AM 43 Water		
LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1774-02	TT-073-IDWGW-2025 0409	WATER			04/09/25 11:30			04/10/25
			рН	9040C			04/11/25 10:00	
Q1774-03	TT-074-IDWGW-2025 0409	WATER	рН	9040C	04/09/25 11:40		04/11/25	04/10/25
			P	50100			10:10	
Q1774-04	0409 TT-075-IDWGW-2025	WATER	pН	9040C	04/09/25 11:50		04/11/25	04/10/25
							10:15	







### **Report of Analysis**

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/09/25 11:30
Project:	CTO WE13	Date Received:	04/10/25
Client Sample ID:	TT-073-IDWGW-20250409	SDG No.:	Q1774
Lab Sample ID:	Q1774-02	Matrix:	WATER
		% Solid:	0
Parameter	Conc. Qua. DF MDL LOD LOQ/CRQL	Units Prep Date	Date Ana. Ana Met.
pH	8.73 H 1 0 0 0	pH	04/11/25 10:00 9040C

Comments: pH result reported at temperature 20.2 °C

- U = Not Detected
- LOQ = Limit of Quantitation
- MDL = Method Detection Limit
- LOD = Limit of Detection
- D = Dilution
- Q = indicates LCS control criteria did not meet requirements
- H = Sample Analysis Out Of Hold Time

- J = Estimated Value
- B = Analyte Found in Associated Method Blank

- E = Indicates the reported value is estimated because of the presence of interference.
- OR = Over Range
- N =Spiked sample recovery not within control limits

<sup>\* =</sup> indicates the duplicate analysis is not within control limits.



### **Report of Analysis**

p	Н	7.05	Н	1	0	0	0	pH		04/11/25 10:10	9040C
Р	arameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
ι									% Solid:	0	
	Lab Sample ID:	Q17	774-03						Matrix:	WATER	
	Client Sample ID:	TT-	-074-ID	WGW	-202504	409			SDG No.:	Q1774	
	Project:	CTO WE13						Date Received:	04/10/25		
	Client:	Teti	ra Tech I	NUS,	Inc.				Date Collected:	04/09/25 1	11:40

Comments: pH result reported at temperature 20.3 °C

- U = Not Detected
- LOQ = Limit of Quantitation
- MDL = Method Detection Limit
- LOD = Limit of Detection
- D = Dilution
- Q = indicates LCS control criteria did not meet requirements
- H = Sample Analysis Out Of Hold Time

- J = Estimated Value
- B = Analyte Found in Associated Method Blank
- \* = indicates the duplicate analysis is not within control limits.
- E = Indicates the reported value is estimated because of the presence of interference.
- OR = Over Range
- N =Spiked sample recovery not within control limits

4 5



### **Report of Analysis**

p	Н	6.62	H	1	0	0	0	pН	1	04/11/25 10:15	9040C
F	arameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
ļ									% Solid:	0	
	Lab Sample ID:	Q177	4-04						Matrix:	WATER	
	Client Sample ID:	TT-0 <sup>7</sup>	75-IDV	VGW	-202504	409			SDG No.:	Q1774	
	Project:	СТО	CTO WE13						Date Received:		
	Client:	Tetra	Tech N	NUS,	Inc.				Date Collected:	04/09/25	11:50

Comments: pH result reported at temperature 20.9 °C

- U = Not Detected
- LOQ = Limit of Quantitation
- MDL = Method Detection Limit
- LOD = Limit of Detection
- D = Dilution
- Q = indicates LCS control criteria did not meet requirements
- H = Sample Analysis Out Of Hold Time

- J = Estimated Value
- B = Analyte Found in Associated Method Blank
- \* = indicates the duplicate analysis is not within control limits.
- E = Indicates the reported value is estimated because of the presence of interference.
- OR = Over Range
- N =Spiked sample recovery not within control limits



### <u>QC RESULT</u> <u>SUMMARY</u>



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

### **Initial and Continuing Calibration Verification**

Client: Project:	Tetra Tech NUS, Inc. CTO WE13					<b>SDG No.:</b> Q1774 <b>RunNo.:</b> LB1353 <sup>9</sup>	91
Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: pH	ICV	рН	7.01	7	100	90-110	04/11/2025
Sample ID: pH	CCV1	рН	2.01	2.00	101	90-110	04/11/2025
Sample ID: pH	CCV2	рН	12.02	12.00	100	90-110	04/11/2025
Sample ID: pH	CCV3	рН	2.01	2.00	101	90-110	04/11/2025



### **Duplicate Sample Summary**

pł	Н	рН	+/-20	5.66		5.67		1	0.18		04/11/2025
Ar	nalyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
	Client ID:	AUD-25-0047DUP				Percent Sol	ids for Spi	ke Sample:	0		
	Project:	CTO WE13				Sample ID:	(	01763-02			
	Client:	Tetra Tech NUS, Inc.				SDG No.:	Q1	774			

Q1774-GENCHEM



### RAW DATA



### Analytical

Summary	Report	
		3

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10 11

METER-1

Analysis Method: 9040C **Parameter:** pH Run Number: LB135391

Analyst By	:	jignesh
Supervisor Review By	:	Iwona
Slope	:	98.6
pH Meter ID	:	WC PH METER-1

Calibration Standards	Chemtech Log#
PH 4 BUFFER SOLUTION	W3178
BUFFER PH 7.00 GREEN 1PINT PK6	W3093
PH 10.01 BUFFER, COLOR CD 475ML	W3191
buffer solution pH 7 yellow	W3071
Buffer Solution, PH2 (500ml)	W3161
Buffer Solution, PH12 (500ml)	W3072

True Value of ICV = 7.00 Control Limits[+/- 0.1].

True Value of CCV1 = 2.00 Control Limits[+/- 0.1].

True Value of CCV2 = 12.00 Control Limits[+/- 0.1].

True Value of CCV3 = 2.00 Control Limits[+/- 0.1].

Seq	LabID	DF	Matrix	Weight (gm)	Volume (ml)	Temperature (°C)	Result (pH)	Anal Date	Anal Time
1	CAL1	1	Water	NA	NA	20.2	4.01	04/11/2025	09:15
2	CAL2	1	Water	NA	NA	20.2	7.00	04/11/2025	09:16
3	CAL3	1	Water	NA	NA	20.3	10.02	04/11/2025	09:17
4	ICV	1	Water	NA	NA	20.3	7.01	04/11/2025	09:20
5	CCV1	1	Water	NA	NA	20.3	2.01	04/11/2025	09:25
6	Q1763-02	1	Water	NA	NA	20.4	5.66	04/11/2025	09:33
7	Q1763-02DUP	1	Water	NA	NA	20.5	5.67	04/11/2025	09:34
8	Q1764-02	1	Water	NA	NA	20.2	6.17	04/11/2025	09:37
9	Q1767-01	1	Water	NA	NA	20.3	6.87	04/11/2025	09:44
10	Q1774-02	1	Water	NA	NA	20.2	8.73	04/11/2025	10:00
11	Q1774-03	1	Water	NA	NA	20.3	7.05	04/11/2025	10:10
12	Q1774-04	1	Water	NA	NA	20.9	6.62	04/11/2025	10:15
13	Q1782-01	1	Water	NA	NA	20.1	5.95	04/11/2025	10:30
14	Q1782-03	1	Water	NA	NA	20.2	6.82	04/11/2025	10 <b>:</b> 35
15	Q1782-05	1	Water	NA	NA	20.3	6.71	04/11/2025	10:40
16	CCV2	1	Water	NA	NA	20.2	12.02	04/11/2025	10:41
17	Q1782-07	1	Water	NA	NA	20.1	6.68	04/11/2025	10:45
18	CCV3	1	Water	NA	NA	20.3	2.01	04/11/2025	10:47

(6636) 4/		Date: 04-11-2025 07:52:57	Raw Sample Storage Collect Date Method	Location		131 04/10/2025 9040C	L41 04/10/2025 9040C	F11 04/40 mmor	04/10/2025 9040C	F11 04/09/2025 9040C		r11 04/09/2025 9040C	F11 04/09/2025 9040C	K11 04/09/2025 9040C		K11 04/09/2025 9040C	K11 04/09/2025 9040C	K11 04/09/2025 and C	
Internal Chain)	Department · Wet.Chamiote.		rvative Customer		old den C	19603	N 4 deg C PSEG03	14 deg C PSEG03		14 deg C TETR06	I 4 deg C TETROF		14 deg C TETR06	14 deg C LOCK01	14 dea C		14 deg C LOCK01	14 deg C LOCK01	
WORKLIST(Hardcopy	WorkList ID: 188859		Matrix Test Prese		Water pH Co	Water pH	Wotor		Water pH		water pH Coc	Water DH	Wotase	water pH Coc	water pH Coo	Water nH	COO	water pH Coo	
	ne: ph w q1764		Customer Sample	AUD-25-0047		R BUR-25-COMP	C NWB-2152		C 11-0/3-IDWGW-20250409	C TT-074-IDWGW-20250400		C IT-075-IDWGW-20250409	E MW-1	T MW-2	(1	L MW-3	T	~	
	WorkList Nar	Samolo	anduipo	Q1763-02		Q1764-02	Q1767-01	01774_02	20-411-2	Q1774-03	04774.04	A-114-04	Q1782-01	Q1782-03		Q1782-05	Q1782-07		

(200) 09410 P Raw Sample Relinquished by: Date/Time 04.11.25 Raw Sample Received by:

Date/Time <u>のいいいろ</u> Raw Sample Received by:

Reviewed By:Iwona On:4/11/2025 11:29:43 AM Inst Id :WC PH METER-1

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5

Raw Sample Relinquished by:

<mark>10</mark> 11

13

Page 1 of 1



### Instrument ID: WC PH METER-1

### Daily Analysis Runlog For Sequence/QCBatch ID # LB135391

Review By jignesh		Inesh	Review On	4/11/2025 11:18:58 AM
Supervise By Iwo		vona	Supervise On	4/11/2025 11:29:43 AM
	SubDirectory LE	3135391	Test	pH
	STD. NAME	STD REF.#		
	ICAL Standard	N/A		
	ICV Standard	N/A		
	CCV Standard	N/A		
	ICSA Standard	N/A		
	CRI Standard	N/A		
	LCS Standard	N/A		
	Chk Standard	W3178,W3093,W3191,V	W3071,W3161,W3072	

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	04/11/25 09:15		jignesh	ОК
2	CAL2	CAL2	CAL	04/11/25 09:16		jignesh	ОК
3	CAL3	CAL3	CAL	04/11/25 09:17		jignesh	ОК
4	ICV	ICV	ICV	04/11/25 09:20		jignesh	ОК
5	CCV1	CCV1	CCV	04/11/25 09:25		jignesh	ОК
6	Q1763-02	AUD-25-0047	SAM	04/11/25 09:33		jignesh	ОК
7	Q1763-02DUP	AUD-25-0047DUP	DUP	04/11/25 09:34		jignesh	ОК
8	Q1764-02	BUR-25-COMP	SAM	04/11/25 09:37		jignesh	ОК
9	Q1767-01	NWB-2152	SAM	04/11/25 09:44		jignesh	ОК
10	Q1774-02	TT-073-IDWGW-2025	SAM	04/11/25 10:00		jignesh	ОК
11	Q1774-03	TT-074-IDWGW-2025	SAM	04/11/25 10:10		jignesh	ОК
12	Q1774-04	TT-075-IDWGW-2025	SAM	04/11/25 10:15		jignesh	ОК
13	Q1782-01	MW-1	SAM	04/11/25 10:30		jignesh	ОК
14	Q1782-03	MW-2	SAM	04/11/25 10:35		jignesh	ОК
15	Q1782-05	MW-3	SAM	04/11/25 10:40		jignesh	ОК
16	CCV2	CCV2	CCV	04/11/25 10:41		jignesh	ОК
17	Q1782-07	MW-4	SAM	04/11/25 10:45		jignesh	ОК
18	CCV3	CCV3	CCV	04/11/25 10:47		jignesh	ОК



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### Prep Standard - Chemical Standard Summary

Order ID :	Q1774
Test :	рН
Prepbatch ID :	
Sequence ID/Qc Bate	<b>ch ID:</b> LB135391,
Standard ID :	
Chemical ID :	
W3071,W3072,W309	3,W3161,W3178,W3191,



### CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL14455-3 / buffer solution pH 7 yellow	4308H30	07/31/2025	01/02/2024 / JIGNESH	12/06/2023 / Iwona	W3071
Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL14940-1 / Buffer Solution, PH12 (500ml)	2310P21	04/30/2025	01/02/2024 / JIGNESH	12/07/2023 / Iwona	W3072
Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	566002 / BUFFER PH 7.00 GREEN 1PINT PK6	44001f99	12/31/2025	04/03/2024 / jignesh	04/02/2024 / jignesh	W3093
Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL13850-1 / Buffer Solution, PH2 (500ml)	2411E26	10/31/2026	12/09/2024 / Iwona	12/09/2024 / Iwona	W3161
Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL14055-3 / PH 4 BUFFER SOLUTION	2411A93	10/30/2026	04/01/2025 / JIGNESH	01/27/2025 / jignesh	W3178

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	1601-1 / PH 10.01 BUFFER,COLOR CD 475ML	2410F80	03/31/2026	04/01/2025 / JIGNESH	03/13/2025 / jignesh	W3191

RICCA CHEMIC Certificate o	AL COMPANY W 3071 Mc 12/6/23 of Analysis	* 1490 Lammers Pike Batesville, IN 47006 http://www.riccachemical.com 1-888-GO-RICCA customerservice@riccachemical.com
		3
Buffer, Reference Standard, pH 7.00	0 ± 0.01 at 25°C (Color Cod	led Yellow) 4
Lot Number: 4308H30 Product 1	Number: 1551	Manufacture Date: AUG 09, 2023
		Expiration Date: JUL 2025
The certified value for this product is confirmed in indepe The NIST traceable pH value is certified to ±0.01 at 25 °C	endent testing by a second qualified chemis C only, All other pH values at their corresp	st. 7
°C 0 5 10 15 20	25 30 35 40 4	15 50 8
pH 7.12 7.09 7.06 7.04 7.02	7.00 6.99 6.98 6.98 6.	97 6.97
Namo	01.04	9
Water	CAS# Gra	10
Sodium Phosphoto Dibasia	7732-18-5 AC	S/ASTM/USP/EP 11
Potassium Dibydrogen Phoenhoto	7558-79-4 AC	S 12
Preservative	Dronwisterr	5
Yellow Dve	Proprietary	
Sodium Hydroxide	1310-73-2 Rea	gent
Test	On antiferation	
Appearance	Specification	Result
m	Yellow liquid	Passed *Not a certified value.
Test	Certified Value	Uncertainty NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	7.002	0.02 186-I-g, 186-II-g, 191d
Specification	Reference	
Commercial Buffer Solutions Buffer A Buffer A	ASTM (D ASTM (D ASTM (D	1293 B) 5464) 5128)
pH measurements were performed in our Batesville, IN la traceable to National Institute of Standards and Technolo, comparisons. The uncertainty is calculated from the uncer Standard Reference Material, and the uncertainty of the m a normal distribution. Volumetric glassware complies with before first use and recalibrated regularly in accordance w weights certified traceable to the NIST national mass stan regularly with a thermometer traceable to NIST standards according to validated methods. Batch records document re	boratory under ISO/IEC 17025 accreditation gy (NIST) Standard Reference Material as tainty of the measurement variation from neasurement process. The uncertainty is m a Class A tolerance requirements of ASTM ith ASTM E 542 and NIST Procedure NBS idard. Thermometers and temperature prol s. All products are prepared according to m aw material traceability and production an	on (ANAB Certificate L2387.02) and are certified indicated above via an unbroken chain of sample to sample, the uncertainty in the NIST ultiplied by k=2, corresponding to 95% coverage in E 288 and NIST Circular 434; it is calibrated IR 74-461. Balances are calibrated regularly with bes are calibrated before first use and recalibrated aster documents that assure manufacture d testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1551-2.5	10 L Cubitainer®	24 months
1551-5	20 L Cubitainer®	24 months
Recommended Storage: 1590 - 20		

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Faul Brandon

Paul Brandon (08/09/2023) Production Manager This document is designed to comply with ISO Guide 31 "Reference Materials --Contents of Certificates and Labels."

### This product was tested in an ISO 17025 Accredited Laboratory

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Version: 1.3



Recommended Storage: 15°C - 30°C (59°F - 86°F)

Travers. nron

Sharon Travers (10/24/2023) Operations Manager This document is designed to comply with ISO Guide 31 "Reference Materials --Contents of Certificates and Labels."

### This product was tested in an ISO 17025 Accredited Laboratory

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Version: 1.3

# 

1490 Lammers Pike Batesville, IN 47006 http://www.riccachemical.com 1-888-GO-RICCA customerservice@riccachemical.con

### Buffer, Reference Standard, pH $7.00 \pm 0.01$ at 25°C (Color Coded Yellow)

Lot N <sub>1</sub>	imber:	4401 6	rgg	P	roduct	Numbe	· 155	1			Manufacture Date: JAN 08, 20				
100 110	Imper.	11011	00	1.	ouuci	14 UIIIDE	sr. 100	T				Expiration Date: DEC 2028			
The cert The NIS	ified valu T traceab	e for this le pH val	product is ue is certi	s confirmed fied to ±0.0	l in inder )1 at 25 °	endent te C only. Al	esting by a ll other pl	a second q H values a	ualified o t their co	chemist. orrespondir	ıg temperatu	res are accurate to $\pm 0.05$ .			
°C pH	0 7.12	5 7.09	10 7.06	15 7.04	20 7.02	25 7.00	30 6.99	35 6.98	40 6.98	$\begin{array}{c} 45\\ 6.97\end{array}$	50 6.97				
Name						CA	S#		1.15	Grade					
Water						77:	32-18-5			ACS/AS	STM/USP/	EP			
Sodiur	n Phosp	hate Di	basic			75	58-79-4	-		ACS					
Potass	ium Dih	ydrogei	n Phosp	hate		77	78-77-0			ACS					
Preser	vative					Pro	oprietar	У							
Yellow	Dye				•	Pro	prietar	У							
Sodiun	n Hydro	xide				131	L0-73-2	•							
Test			-17			1.0	Spee	cification	n	Re	sult				
Appear	ance						Yell	ow liqui	d	Pas	sed	*Not a certified value.			
Test	a series		267		515	1994	Cert	ified Va	lue	Un	certainty	NIST SRM#			
pH at 2	5°C (M	ethod: S	QCP02	7, SQCP	033)		7.00	4		0.0	2	186-I-g, 186-II-g, 191d			
Specific	ation	1,311				Reference									
Comme	rcial Bu	ffer Sol	utions						AST	M (D 1293	B)				
Buffer A	ł								ASTN	A (D 5464	)				
Buffer A	<u> </u>								ASTN	A (D 5128	)				
pH meas traceable comparis Standard	urements to Nation ons. The u Reference	were perf nal Institu incertaint e Materia	formed in ite of Star ty is calcu l, and the	our Bates idards and lated from uncertain	ville, IN 1 Technole the unce ty of the	aboratory ogy (NIST rtainty of measuren	under IS ) Standar the meas	O/IEC 170 rd Referent surement v	025 accre ce Mater variation	ditation (A rial as indic from samp	NAB Certific ated above v le to sample lied by k=2	cate L2387.02) and are certified ia an unbroken chain of , the uncertainty in the NIST			

a normal distribution. Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated sponding to 95% coverage in before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1551-1	4 L natural poly	24 months
1551-1CT	4 L Cubitainer®	24 months
1551-2.5	10 L Cubitainer®	24 months
1551-5	20 L Cubitainer®	24 months
Recommanded Store and 1590 - 2091		

commended Storage: 15°C - 30°C (59°F - 86°F)

fand Brandon

Paul Brandon (01/08/2024) Production Manager This document is designed to comply with ISO Guide 31 "Reference Materials --Contents of Certificates and Labels."

### This product was tested in an ISO 17025 Accredited Laboratory

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	RIC	CCA W316	I Rec.	<b>HEN</b>	<b>NIC</b> 09/24 k	AL by IZ	<b>M</b> F	PAN	1X.	F http:	1841 Broad Stree Pocomoke City, MD 21851 //www.riccachemical.com 1-888-GO-RICCA	
		Ce	ertif	ica	te c	of A	nal	ysis	3		customerse	ervice@riccachemical.com
Buffer	, Refe	rence	Stand	lard, p	H 2.0	$0 \pm 0.0$	)1 at 2	25°C				
	_	0 / 1 4 T		Б			1 404	2			Manufac	ture Date: NOV 11, 2024
Lot Nu	mber:	2411E	26	<b>P</b> :	roduct	Numbe	<b>r</b> : 1493	3			E	xpiration Date: OCT 2026
The certi The NIS °C pH	ified value T traceab 10 1.93	e for this p le pH valu 15 1.98	product is ue is certif 20 1.98	confirmed fied to ±0. 25 2.00	d in indep 01 at 25 ° 30 2.01	c only. Al 35 2.03	sting by a l other pF 40 2.03	i second qu I values a 45 2.04	ualified cl t their co 50 2.04	hemist. rrespondi	ng temperature	es are accurate to $\pm 0.05$ .
Name						CA	S#			Grade		
Water						77	32-18-5			ACS/A	STM/USP/E	P
Potass	ium Ch	loride				74	47-40-7			ACS		
Hydro	chloric A	Acid				76	47-01-0			ACS		
Test							Spe	cificatio	n	R	esult	
Appear	rance						Col	orless li	quid	Pa	assed	*Not a certified value
Test							Cer	tified Va	alue	U	ncertainty	NIST SRM#
pH at 2	25°C (N	lethod:	SQCP02	27, SQC	P033)		1.99	94		0.	.02	185i, 186-I-g, 186-II-g
pH mea certified chain of	lsurement l traceabl f comparis	ts were pe e to Natio sons. The	erformed i onal Instit uncertain	n our Poc ute of Sta ty is calcu	omoke Cit ndards an ilated from	ty, MD lab nd Techno m the unc	oratory u logy (NIS ertainty o	nder ISO/ T) Standa f the meas	IEC 1702 rd Refere surement	25 accredit ence Mate variation	tation (ANAB ( rial as indicate from sample to	Certificate L2387.01) and are d above via an unbroken o sample, the uncertainty in

the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution. Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)					
1493-1	4 L natural poly	24 months					
1493-16	500 mL natural poly	24 months					
1493-1CT	4 L Cubitainer®	24 months					
1493-2.5	10 L Cubitainer®	24 months					
1493-32	1 L natural poly	24 months					
<b>Recommended Storage:</b> 15°C - 30°C (50°F - 86°F)							

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Q1774-GENCHEM

'Y

Jose Pena (11/11/2024) Operations Manager

### This product was tested in an ISO 17025 Accredited Laboratory

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RICCA CHEMIC	CAL COMPA	NY°	ht	Pocomo tp://www	1841 Broad Stra ke City, MD 218 riccachemical.co 1-888-GO-RICO
Certificate o	of Analysis		custome:	rservice@ KS	riccachemical.co
Buffer, Reference Standard, pH 4.0	0 ± 0.01 at 25°C (Colo	r Coded	Red)		0
Lot Number: 2411A93 Product I The certified value for this product is confirmed in indeper The NIST Traceable pH value is certified to ±0.01 at 25 °	Number: 1501 endent testing by a second qualifie C only. All other pH values at the	d chemist.	Manuf	acture Da Expiration	te: NOV 04, 202 1 Date: OCT 202
°C 0 5 10 15 20 pH 4.00 4.00 4.00 4.00 4.00	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	r correspondir ) 45 3 4.04	ng temperatu 50 4.06	ares are accu	rate to ± 0.05.
Name	CAS#	Grade			
water Potassium Acid Phthalate Preservative Red Dye	7732-18-5 877-24-7 Proprietary Proprietary	ACS/AS Buffer Commer	ТМ/USPЛ cial	EP	· · · · · · · · · · · · · · · · · · ·
est	Specification	r urified		A CLEAR LINE	
ppearance	Red liquid	Pass	sed	*No	a certified value
est	Certified Value	Unc	ertainty	NIST SI	M#
H at 25°C (Method: SQCP027, SQCP033)	4.008	0.02		185i, 18	3-I-g, 186-II-g
pecification	Ref	erence			
uffer B uffer B	AST AST AST	TM (D 1293) TM (D 5464) TM (D 5128)	B)	••••••	·····
rtified traceable to National Institute of Standards and T iain of comparisons. The uncertainty is calculated from the e NIST Standard Reference Material, and the uncertaint % coverage in a normal distribution. Volumetric glasswar is calibrated before first use and recalibrated regularly in librated regularly with weights certified traceable to the I fore first use and recalibrated regularly with a thermome cuments that assure manufacture according to validated story for each lot manufactured.	AD laboratory under ISO/IEC 1702 Pechnology (NIST) Standard Reference and uncertainty of the measurement y of the measurement process. The re complies with Class A tolerance accordance with ASTM E 542 and NIST national mass standard. The ter traceable to NIST standards. A methods. Batch records document	25 accreditatic ence Material variation from uncertainty i requirements NIST Proced rmometers an all products ar raw material	n (ANAB Ce as indicated n sample to s multiplied of ASTM E ure NBSIR d temperatu e prepared a traceability	ertificate L23 above via an sample, the by k=2, corr 288 and NIS 74 461. Balan are probes ar according to n and producti	87.01) and are unbroken incertainty in esponding to T Circular 434; nees are e calibrated naster on and testing
rt Numbon	Package Tupe	She	J#T : 0. /TT	CHARGE THE P	
Size /	a spec			nonor (	and and the second s

Version: 1.3

Page 1 of 2

RICCA	CHEMICAL	COMPANY®	N31

V 1841 Broad Street Pocomoke City, MD 21851 http://www.riccachemical.com 1·888-GO-RICCA customerservice@riccachemical.com

## Certificate of Analysis

### Buffer, Reference Standard, pH $10.00 \pm 0.01$ at 25°C (Color Coded Blue)

Lot Number: 2	2410F80
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Ma

Product Number: 1601

Manufacture Date: OCT 09, 2024

Expiration Date: MAR 2026

The certified value for this product is confirmed in independent testing by a second qualified chemist. The NIST traceable pH value is certified to ±0.01 at 25 °C only. All other pH values at their correspon

00	0					Comy. At	1 other p	H values a	t their con	respondi	ar tomponotic
U	0	5	10	15	20	95	20			- To criticity	The competatures are accurate to $\pm 0.05$ .
$_{\rm pH}$	10.31	10.23	10.17	10 11	10.05	40	30	35	40	50	
				10.11	10.00	10.00	9.95	9.91	9.87	9.81	

Water	CAS#	Grade	
Water Sodium Carbonate Sodium Bicarbonate Sodium Hydroxide Preservative Blue Dye	7732-18-5 497-19-8 144-55-8 1310-73-2 Proprietary Proprietary	ACS/ASTM/USP/ ACS ACS Reagent	EP
Test	-1-10 Mily		Network Render
Appearance	Specification	Result	
Test	Blue liquid	Passed	*Not a certified value
pH at 25°C (Method: SQCP027, SQCP033)	Certified Value	Uncertainty	NIST SRM#
Specification	10.009	0.02	186-I-g, 186-II-g, 191d

opecification	
Commercial Buffer Solutions	Reference
Buffer C	ASTM (D 1293 B)
Buffer C	ASTM (D 5464)
pH measurements	ASTM (D 5128)

pH measurements were performed in our Pocomoke City, MD laboratory under ISO/IEC 17025 accreditation (ANAB Certificate L2387.01) and are certified traceable to National Institute of Standards and Technology (NIST) Standard Reference Material as indicated above via an unbroken chain of comparisons. The uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Peakon B	
1601-1	the reacting type	Shelf Life (Unopened Container)
1601-16	4 L natural poly	18 months
1601-1CT	4 L Cubitaine	18 months
1601-2.5	10 L Cubitainer®	18 months
1601-32	1 L natural poly	18 months
1601-5	20 L Cubitainer®	18 months
Version: 1.3	Lot Number: 0.410Ecc	18 months
	Lot Humper, 2410F80 Dedaut N	

Froduct Number: 1601

Page 1 of 2



### <u>SHIPPING</u> DOCUMENTS

CHAIN OF CUS	TTECH STODY RECORD	4 Sheffield Street, (908) 789-8900 www.che	Mount Fax: emtec	tains (908) h.nei	ide, NJ 0 78-8922	7092		Che COC	mteo > Nu	ch Pr mber	oject	t Nur	nber	:	Q	<u>1</u>	774	
	CLIENT INFORMATION	PRO	JECT	INFO	ORMATIO	N						BI	LLIN	g inf	FORM	ITAN	ON	
COMPANY: Tetra T	ech	PROJECT NAME: NW	RP Beth	npage				BILL 1	ro: Se	EE COI	NTRAC	т				PO#		
ADDRESS: 4433 C	orporation Ln, Suite 300	PROJECT #: 112G08005-WE13 LOCATION: GW IDW							ADDRESS:									
CITY: Virginia Beac	h STATE: VA ZIP: 23462	PROJECT MANAGER:	Ernie W	/u				CITY: STATE: ZIP:									TE: ZIP:	
ATTENTION: Ernie	Wu	E-MAIL: ernie.wu@tetra	atech.co	m				ATTENTION: PHONE:										
PHONE: 757-466-49	01 FAX: 757-461-4148	PHONE: 757-466-4901	_	_	FAX: 757-4	61-4148					AN		515	-		1		
DATA	TURNAROUND INFORMATION	DATA DEI	IVER	ABLE	INFORM	ATION		4		<u>8</u>	8082							
FAX: HARD COPY: EDD * TO BE APPROV STANDARD TURI	48hr DAYS* 48hr DAYS* 48hr DAYS* ED BY CHEMTECH VAROUND TIME IS 10 BUSINESS DAYS	RESEULTS ONLY     USEPA CLP     RESULTS + QC     New York State ASP "B"     New Jersey REDUCED     New York State ASP "A"     New Jersey CLP     Other						VOC's (EPA 62	표 2	υ Total Met	Vda) s,834	5 ERVA	6 TIVE	7	8	9	COMMENTS	
			SAM	PLE	SAM	PLE	s		_	[			1	1		1	< Specify Preservatives	
CHEMTECH SAMPLE	PROJECT SAMPLE IDENTIFICATION	SAMPLE TYP		GRAB	COLLE	TIME	# of Bottle	A 1	2 3	В 3	4	5	6	7	8	9	A-HCI B-HNO3 C-H2SO4 D-NaOH E-ICE F-Other	
1.	BP-TB-20250407	QA		Х	4/7/25	9:00	2	2									Trip Blank	
2.	TT-073-IDWGW-20250409	AQ		Х	4/9/25	11:30	5	2	1	1	1						PH-1-3 LOT # 80 AD 44	
3.	TT-074-IDWGW-20250409	AQ		Х	4/9/25	11:40	5	2	1	1	1						PH 1.3	
4.	TT-075-IDWGW-20250409	AQ		Х	4/9/25	11:50	5	2	1	1	1				-	-	D-1-6	
5.																-		
7.										-								
8.																		
9.							R											
10.																		
	SAMPLE CUSTODY MUST BE DOCU	IMENTED BELOW	EACH	I TIM	E SAMPI	ES CH	ANGE	PRO	SSE	SSIO	N IN	CLU	DING	CO	URIE	R DI	ELIVERY	
RELINQUISHED BY RELINQUISHED BY RELINQUISHED BY	AMPLER DATE/TIME 4/9/25 14:00 DATE/TIME 4/9/25 1. CODE 4-10-25 2	(A )	Condit MeOH Comm 48hr T	ions c extrac ents: AT - C	of bottles o ction requir TO-WE13 I	r coolers a res an add Drilling GV	at recei itional V IDW S	pt: 4oz. Ja Sampli	q Col Ir for ng - I	mpliar perce Frac T	nt q ntsoli ank#	Non ( id 3291 (	Comp (TT-05	liant 50) (	q Coo Adju	oler T q st F/ CR ()	emp <u>2.3<sup>°C</sup></u>   Ice in Cooler?: <u>4</u>   ACHON_+	
2. RELINQUISHED B	DATE/TIME RECEIVED FOR I	AB BY	SHIPPED VIA: CLIENT: I Hand Delivered I Overnight       Shipment Complete         Page 1 _of_1       CHEMTECH: I Picked Up       Overnight						Shipment Complete									
	WHITE - CHEMTE	CH COPYFOR RETUR	N TO C	LIENT	YELLO	OW - CHEN	NTECH	COPY	P	INK -	SAMP	LER (	COPY					

Q1774-GENCHEM

From: Sent: Subject: Attachments: Wu, Ernie <Ernie.Wu@tetratech.com> Thursday, April 10, 2025 2:48 PM RE: Q1774 SKM\_C55825041011470.pdf

EXTERNAL EMAIL - This email was sent by a person from outside your organization. Exercise caution when clicking links, opening attachments or taking further action, before validating its authenticity.

Secured by Check Point

Kiran,

Thanks for letting me know. Please proceed with the analysis without the trip blank.

Ernie

**Ernie Wu** | Project Manager | Environmental Scientist Direct +1 (757) 466-4148 | Business +1 (757) 461-3768 | <u>ernie.wu@tetratech.com</u> Time Zone: Eastern Time

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From: Kiran Saleem <Kiran.Saleem@alliancetg.com>
Sent: Thursday, April 10, 2025 12:45 PM
To: Wu, Ernie <Ernie.Wu@tetratech.com>
Cc: Yazmeen Gomez <Yazmeen.Gomez@alliancetg.com>
Subject: Q1774

**CAUTION:** This email originated from an external sender. Verify the source before opening links or attachments.

Good Afternoon Ernie,

I am reaching out to inform you that we did not receive the sample 1 which is BP-TB-20250407 for attached COC.

Thanks.

**NOTE:** Chemtech is now an Alliance Technical Group company. Please add <u>AllianceTG.com</u> to your safe senders list to ensure receipt of important emails.

Regards,



Kiran Saleem Project Manager Alliance Technical Group Main: 908-789-8900 Direct: 908-728-3148 Address: 284 Sheffield St, Ste 1, Mountainside, NJ 07092 www.alliancetg.com



### Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

### LOGIN REPORT/SAMPLE TRANSFER

Order ID:Q1774TETR06Client Name:Tetra Tech NUS, Inc.Client Contact:Ernie WuInvoice Name:Tetra Tech NUS, Inc.Invoice Contact:Ernie Wu		TETR06 (nc. (nc.	Order Date : 4/10/2025 Project Name : CTO WE1 Receive DateTime : 4/10/2025 Purchase Order :			H	Project Mgr : Report Type : EDD Type : ard Copy Date : Date Signoff :	Level 4 ADAPT			
LAB ID	CLIENT ID	<b>MAT</b> )	RIX SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	941 (AL 1997)	FAX DATE	DUE DATES	
<del>Q1774-01</del>	-> BP-TB-20250407	-Wa	ter 04/09/2025	<u>09.00</u>							
Q1774-02	TT-073-IDWGW-2025	)409 Wa	ter 04/09/2025	5 11:30	VOCME Group4		6 <del>24.1</del>	2 Bus: Days			
					VOCMS Group4		624.1	2 Bus. Days			
Q1774-03	TT-074-IDWGW-20250	)409 Wa	ter 04/09/2025	11:40							
					VOCMS Group4		624.1	2 Bus. Days			
Q1774-04	TT-075-IDWGW-20250	409 Wat	er 04/09/2025	11:50							
					VOCMS Group4		624.1	2 Bus. Days			

**Relinguished By :** Date / Time : 4402 1120

**Received By :** 11:20 1025 Date / Time :

Storage Area : VOA Refridgerator Room